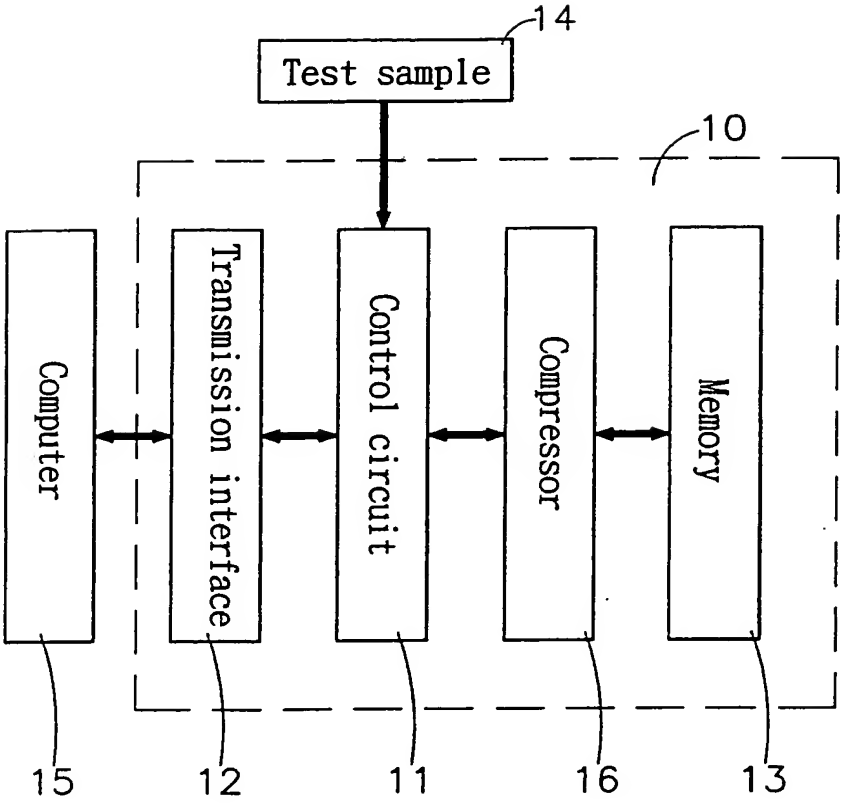

14
Test sample
10
Computer
Transmission interface
Control circuit
Compressor
Memory
15
12
11
16
13

FIG. 1A

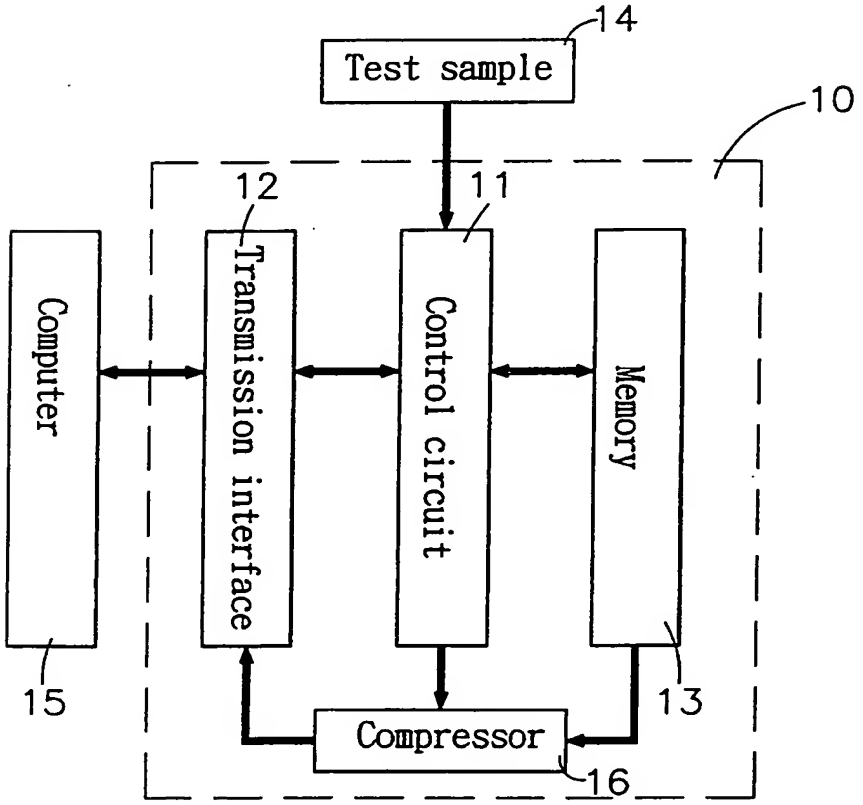

14
Test sample
10
12
11
Computer
Transmission interface
Control circuit
Memory
15
13
Compressor
16

FIG. 1B

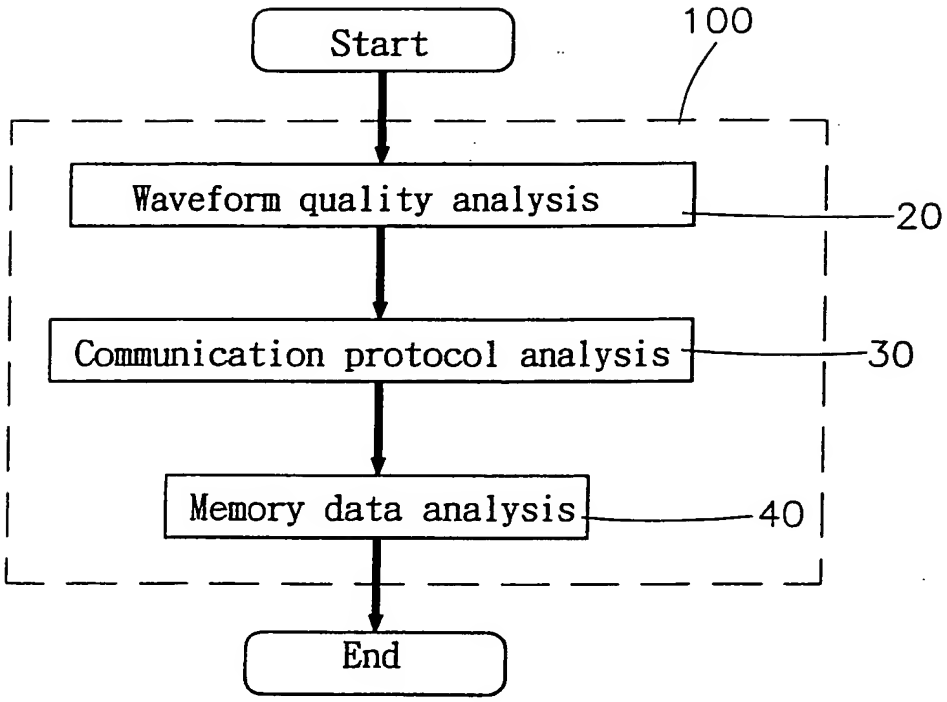

Start
100
Waveform quality analysis
20
Communication protocol analysis
30
Memory data analysis
40
End

FIG. 2

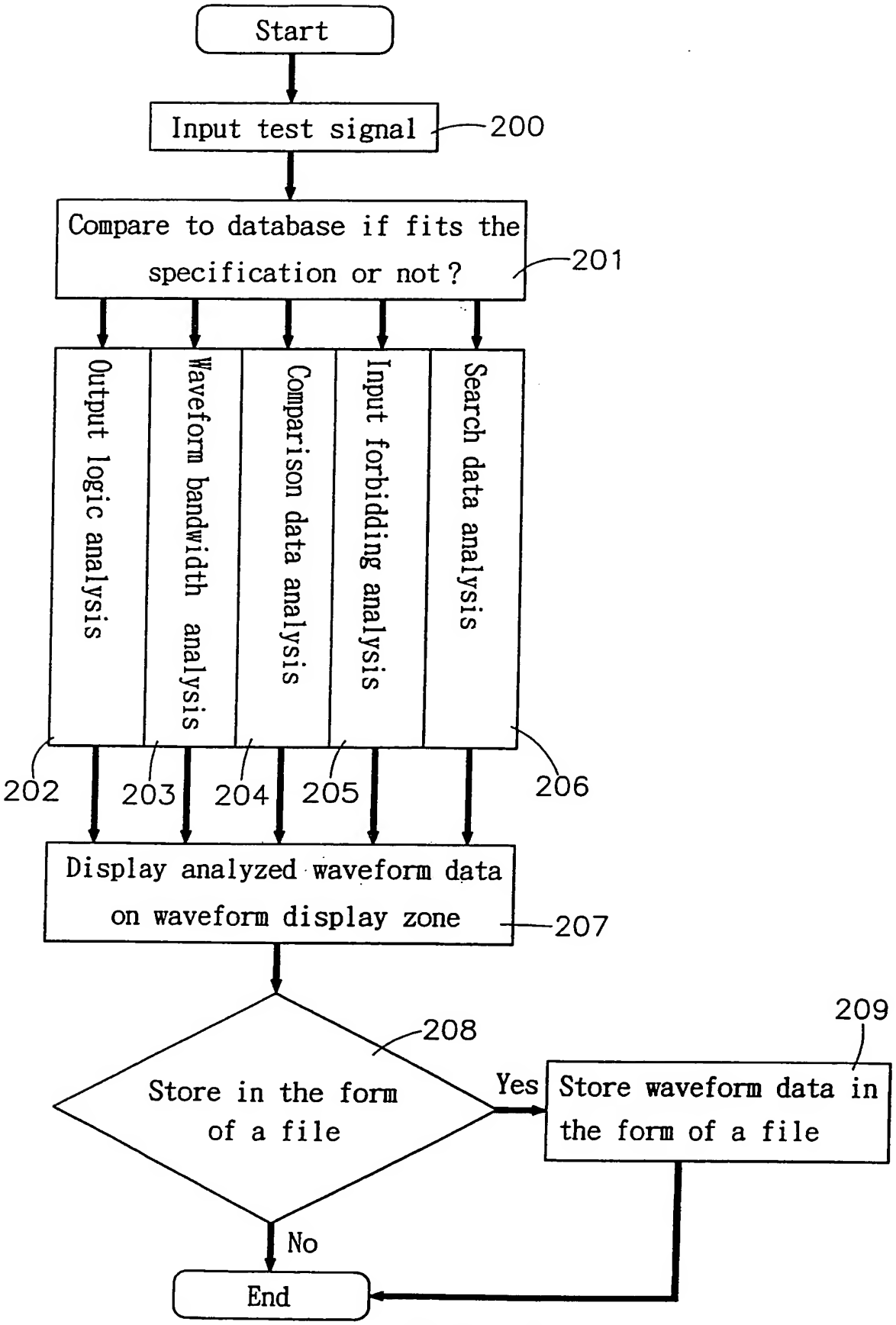

Start
Input test signal
200
Compare to database if fits the specification or not?
201
Output logic analysis
Waveform bandwidth analysis
Comparison data analysis
Input forbidding analysis
Search data analysis
202
203
204
205
206
Display analyzed waveform data on waveform display zone
207
Store in the form of a file
208
Yes
Store waveform data in the form of a file
209
No
End

FIG. 3

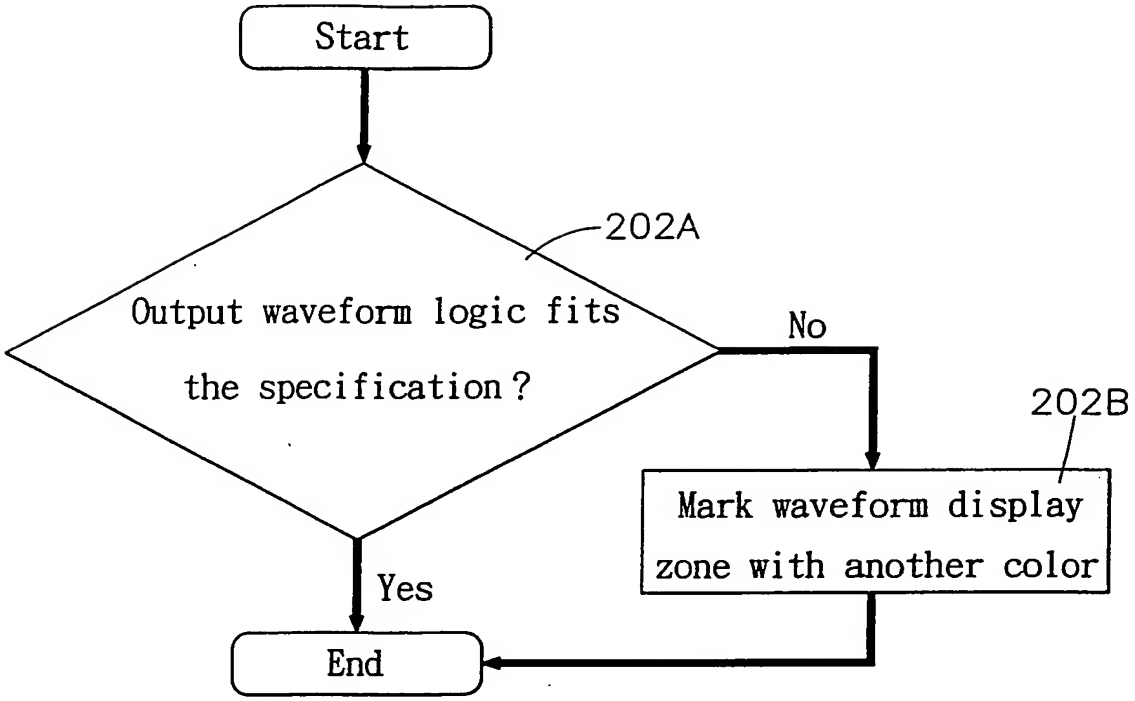

Start
202A
Output waveform logic fits the specification?
No
202B
Mark waveform display zone with another color
Yes
End

FIG. 3A

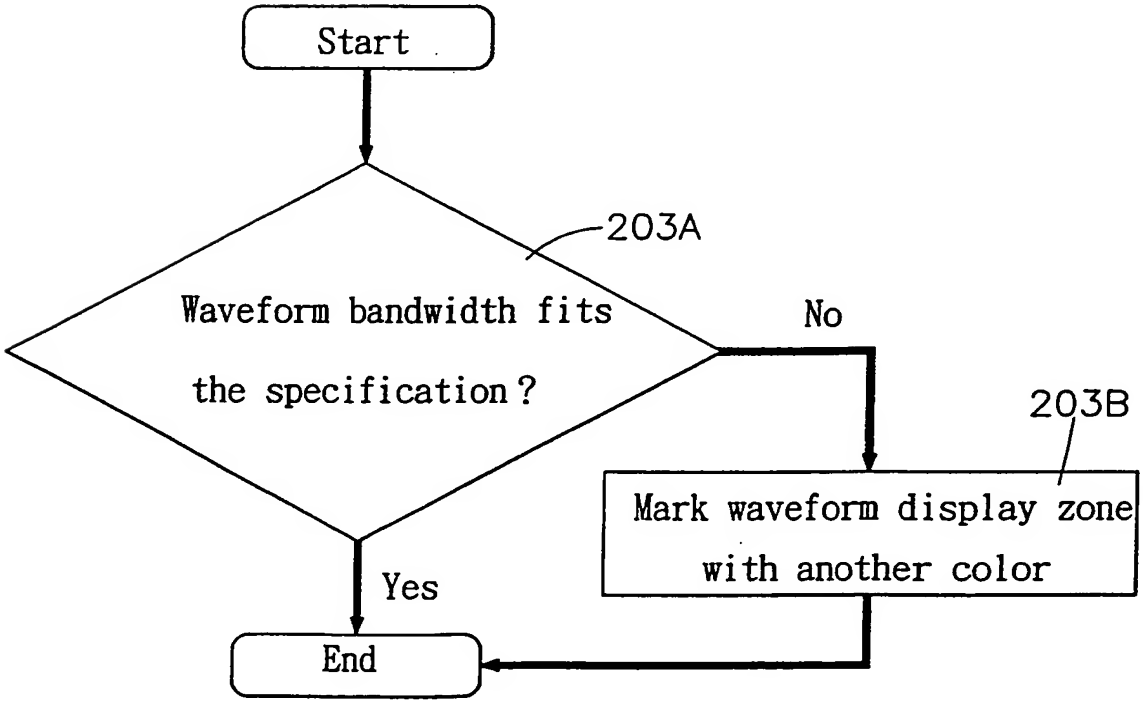

Start
203A
Waveform bandwidth fits the specification?
No
203B
Mark waveform display zone with another color
Yes
End

FIG. 3B

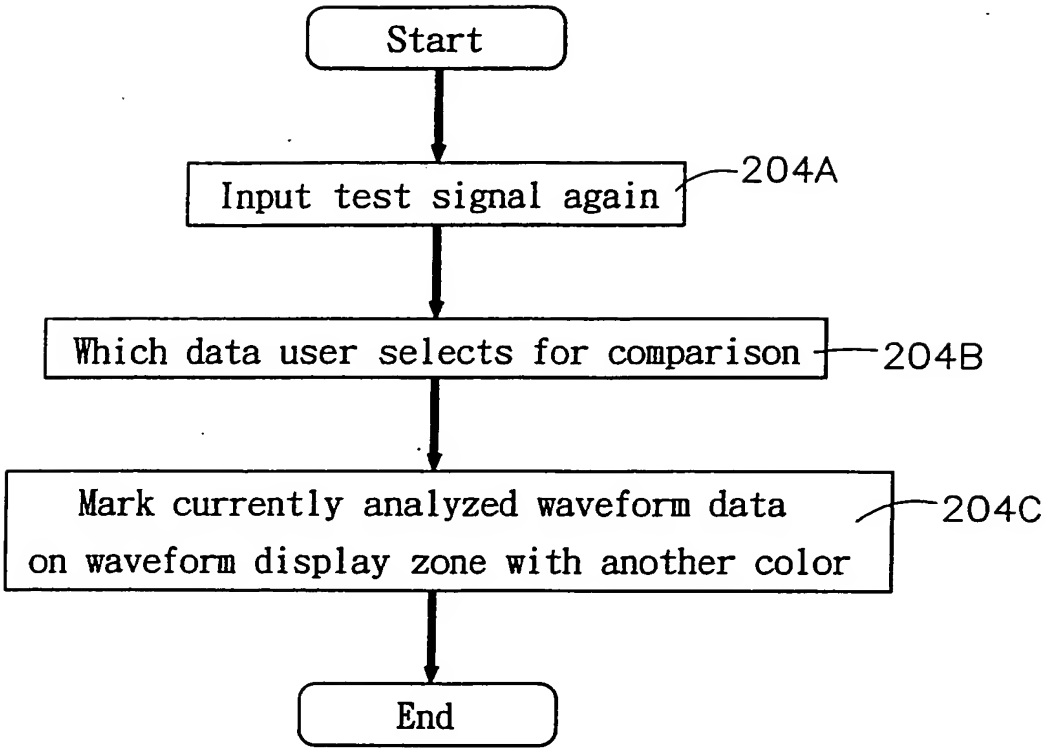

Start
Input test signal again
204A
Which data user selects for comparison
204B
Mark currently analyzed waveform data on waveform display zone with another color
204C
End

FIG.3C

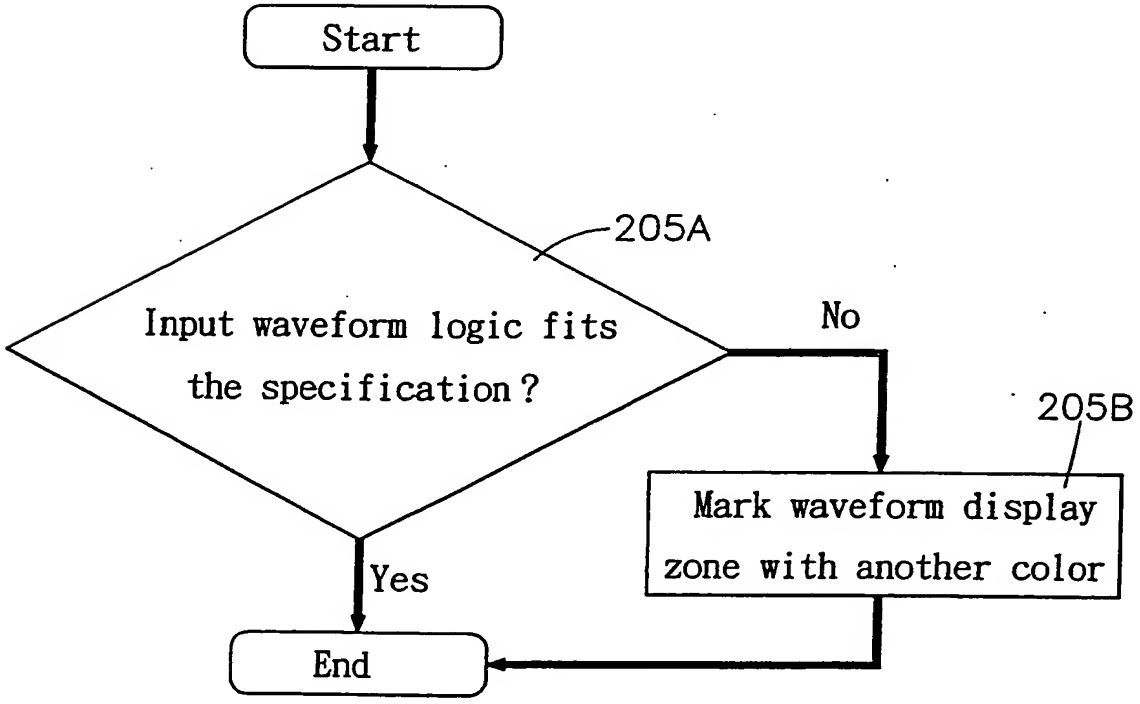

Start
205A
Input waveform logic fits the specification?
No
205B
Mark waveform display zone with another color
Yes
End

FIG.3D

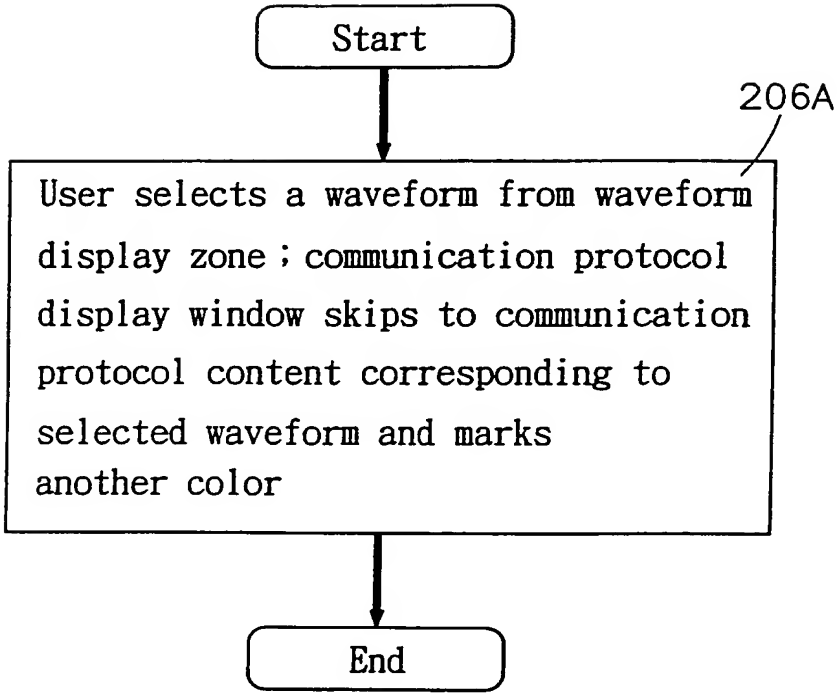

Start
206A
User selects a waveform from waveform display zone ; communication protocol display window skips to communication protocol content corresponding to selected waveform and marks another color
End

FIG.3E

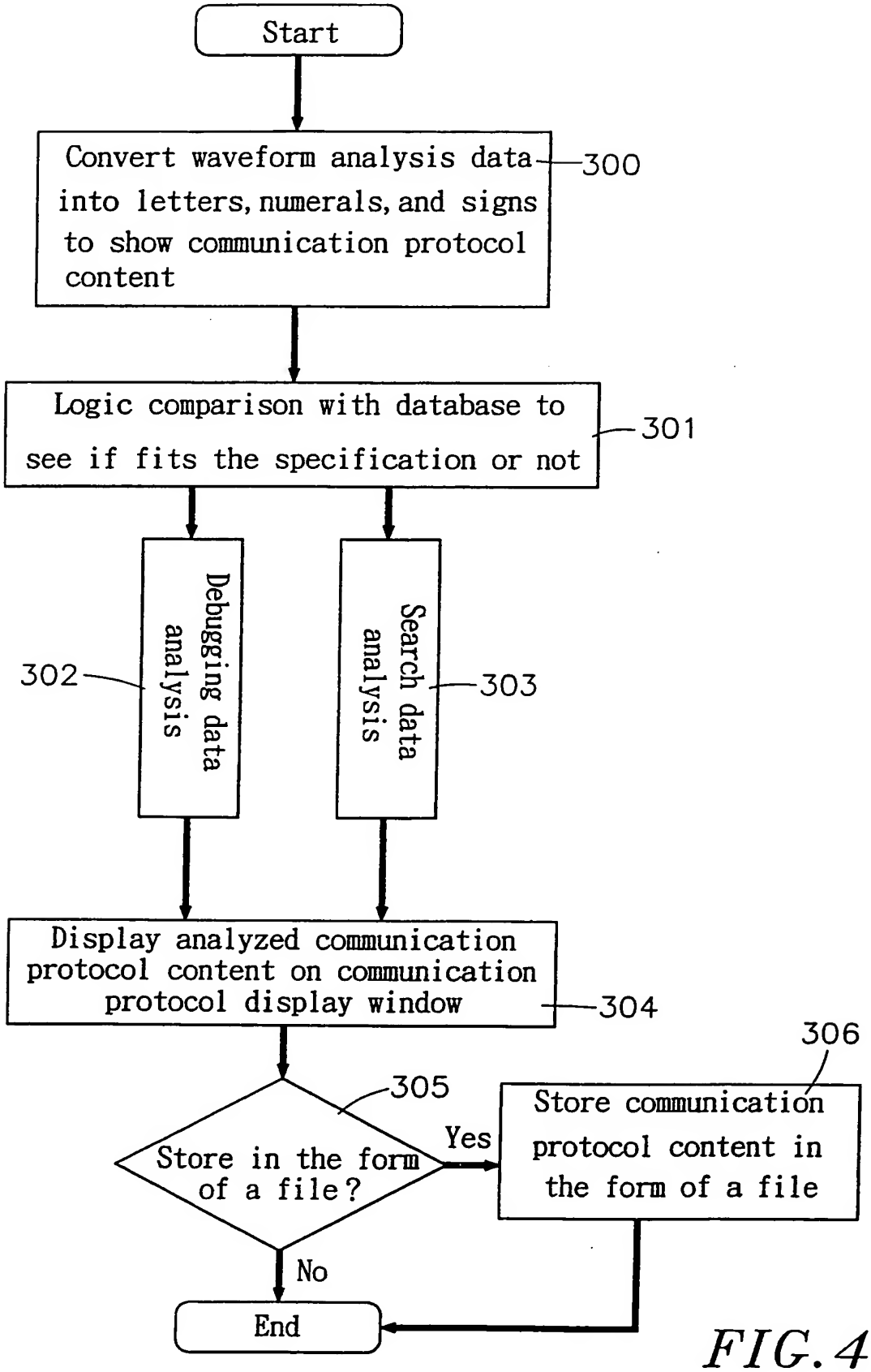

Start
Convert waveform analysis data into letters, numerals, and signs to show communication protocol content
300
Logic comparison with database to see if fits the specification or not
301
Debugging data analysis
302
Search data analysis
303
Display analyzed communication protocol content on communication protocol display window
304
Store in the form of a file?
305
Yes
No
Store communication protocol content in the form of a file
306
End

FIG. 4

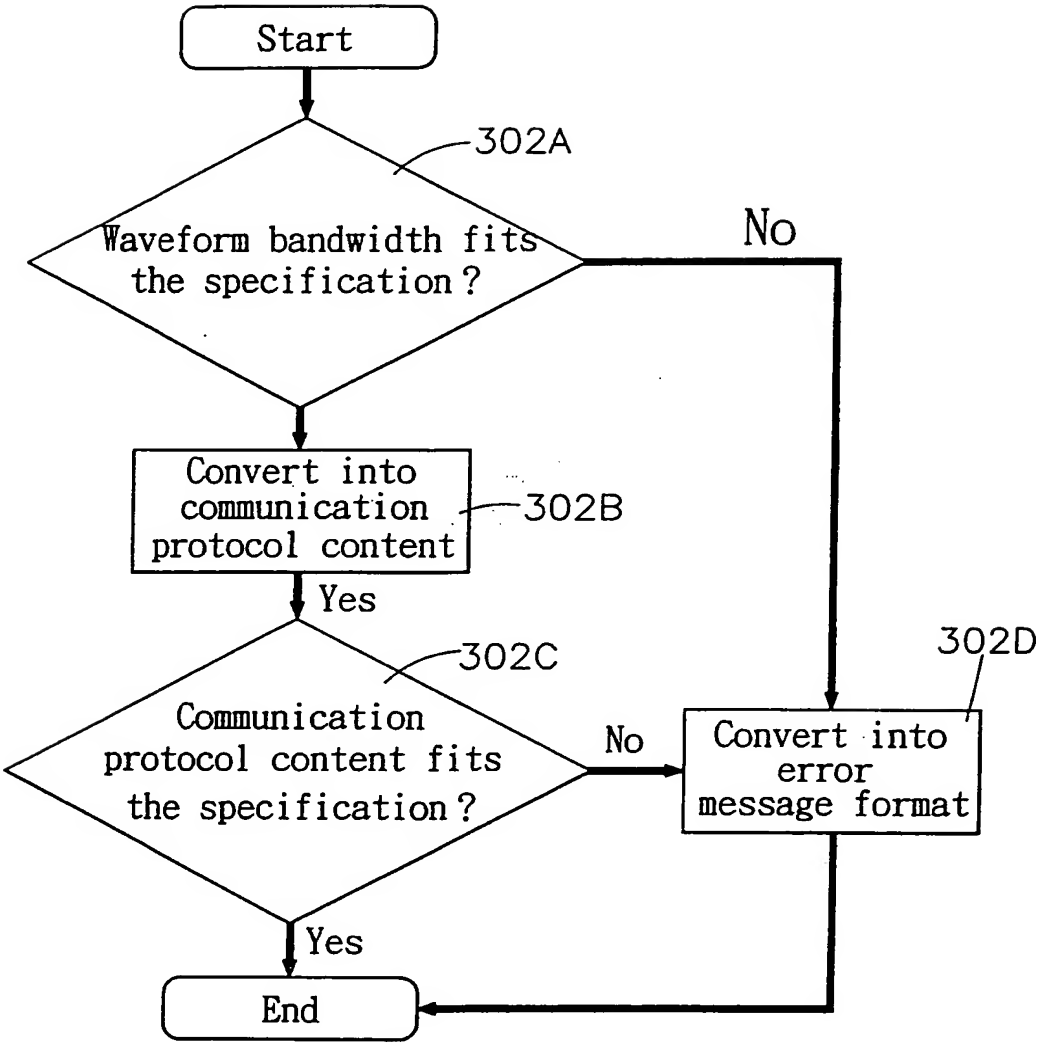

Start
302A
Waveform bandwidth fits the specification?
No
Convert into communication protocol content
302B
Yes
302C
Communication protocol content fits the specification?
No
302D
Convert into error message format
Yes
End

FIG. 4A

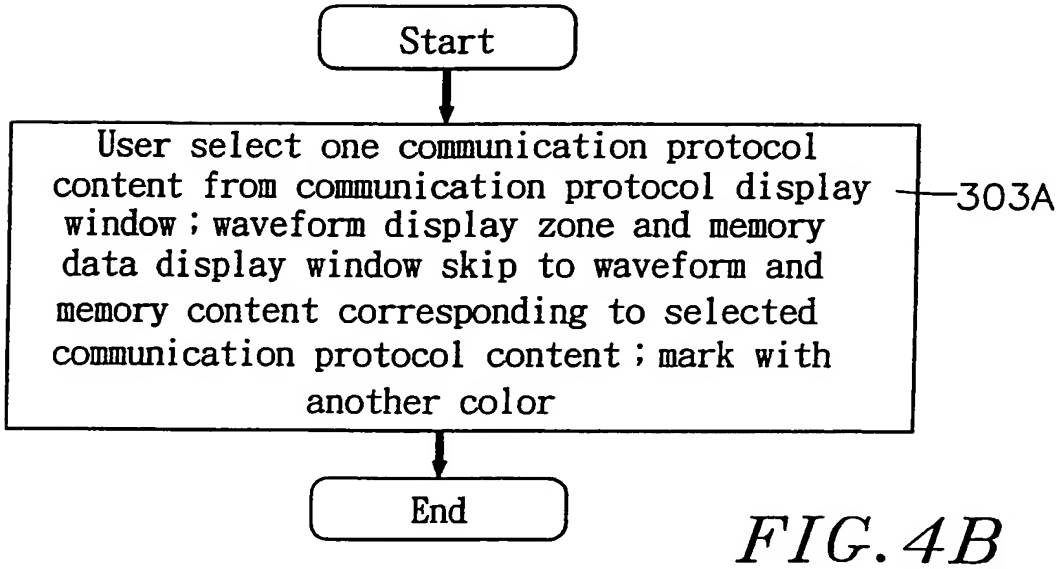

Start
User select one communication protocol content from communication protocol display window ; waveform display zone and memory data display window skip to waveform and memory content corresponding to selected communication protocol content ; mark with another color
303A
End

FIG. 4B

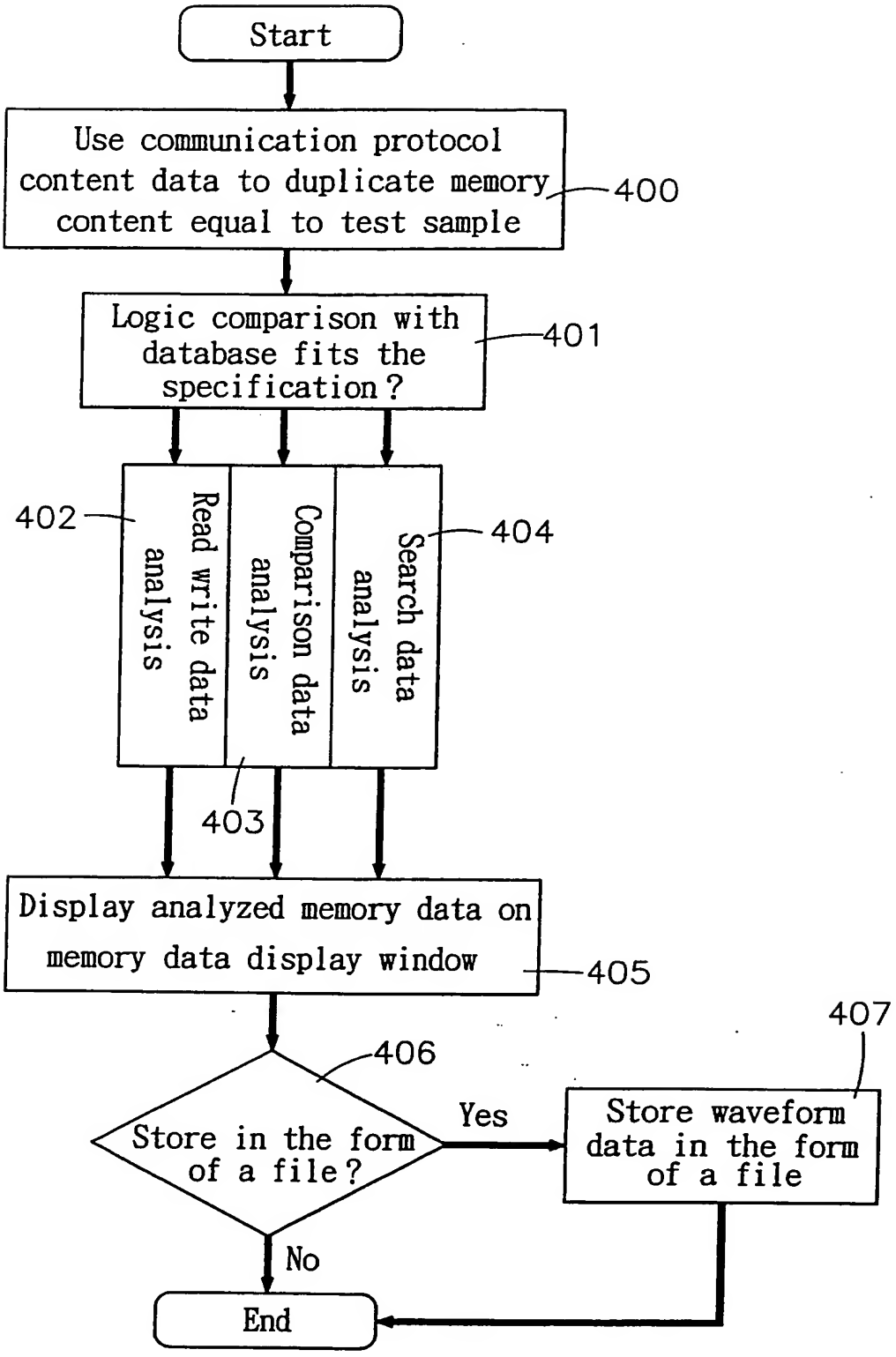

Start
Use communication protocol content data to duplicate memory content equal to test sample
400
Logic comparison with database fits the specification?
401
402
Read write data analysis
Comparison data analysis
Search data analysis
404
403
Display analyzed memory data on memory data display window
405
406
Store in the form of a file?
Yes
No
407
Store waveform data in the form of a file
End

FIG.5

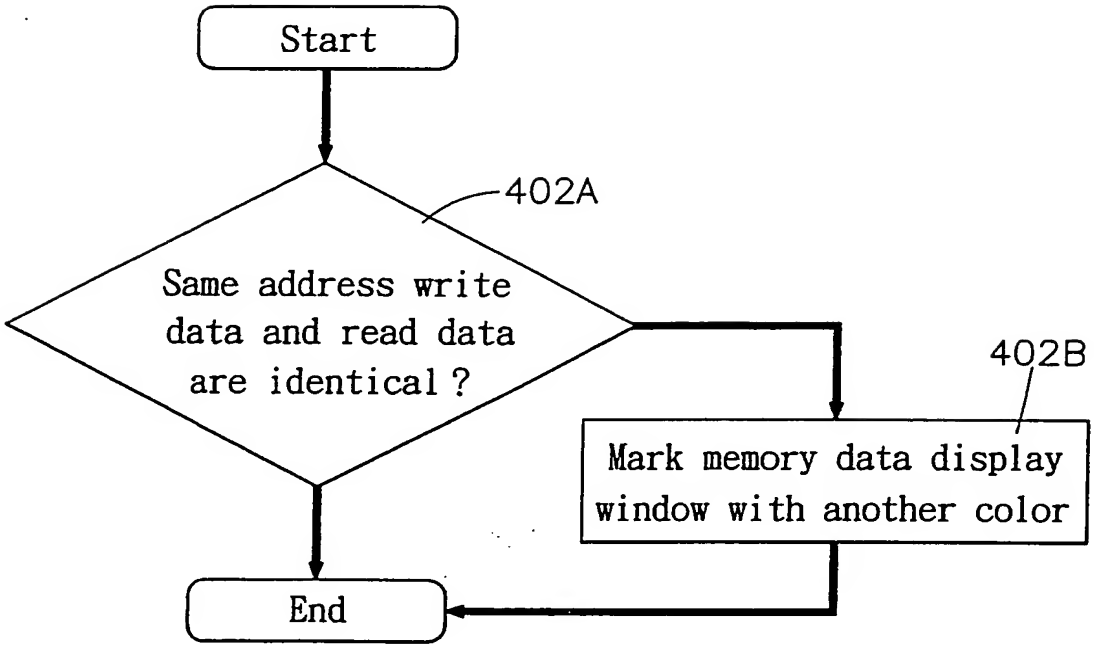

Start
402A
Same address write data and read data are identical ?
402B
Mark memory data display window with another color
End

FIG.5A

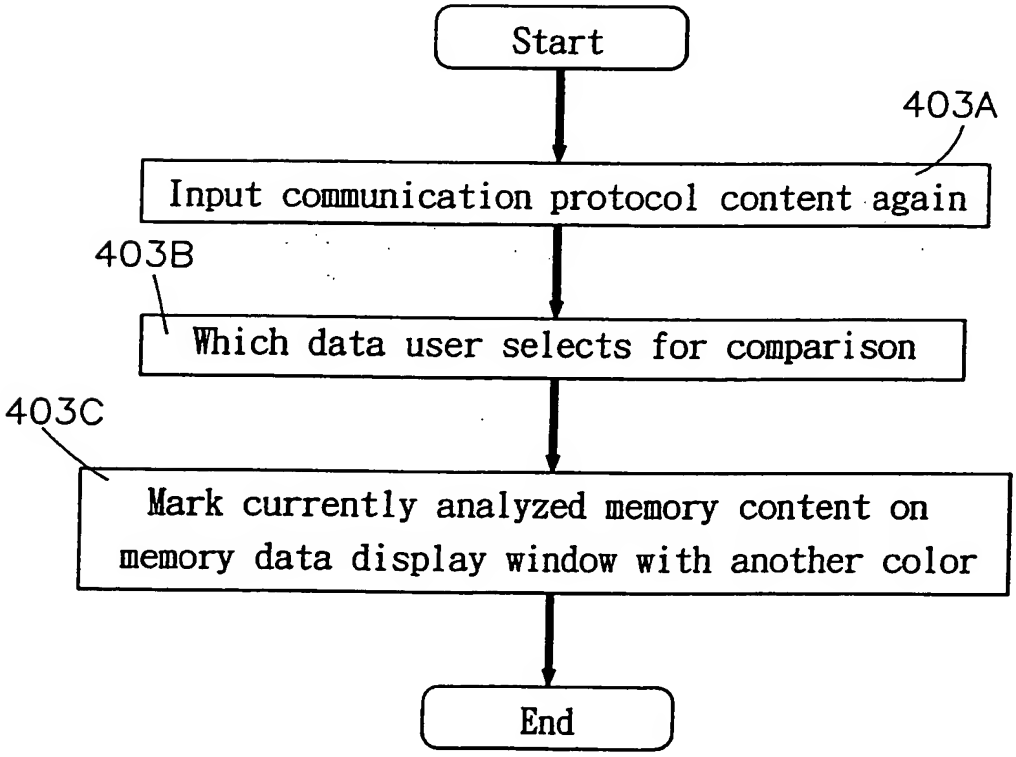

Start
403A
Input communication protocol content again
403B
Which data user selects for comparison
403C
Mark currently analyzed memory content on memory data display window with another color
End

FIG.5B

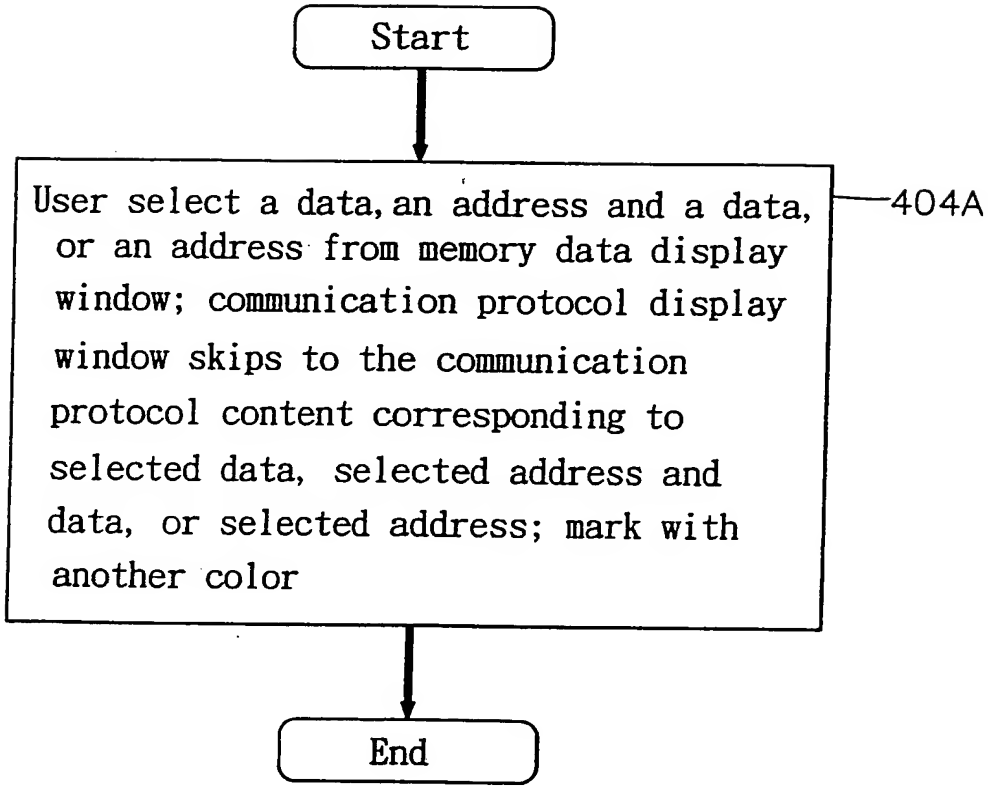

Start
User select a data, an address and a data, or an address from memory data display window; communication protocol display window skips to the communication protocol content corresponding to selected data, selected address and data, or selected address; mark with another color
404A
End

FIG. 5C

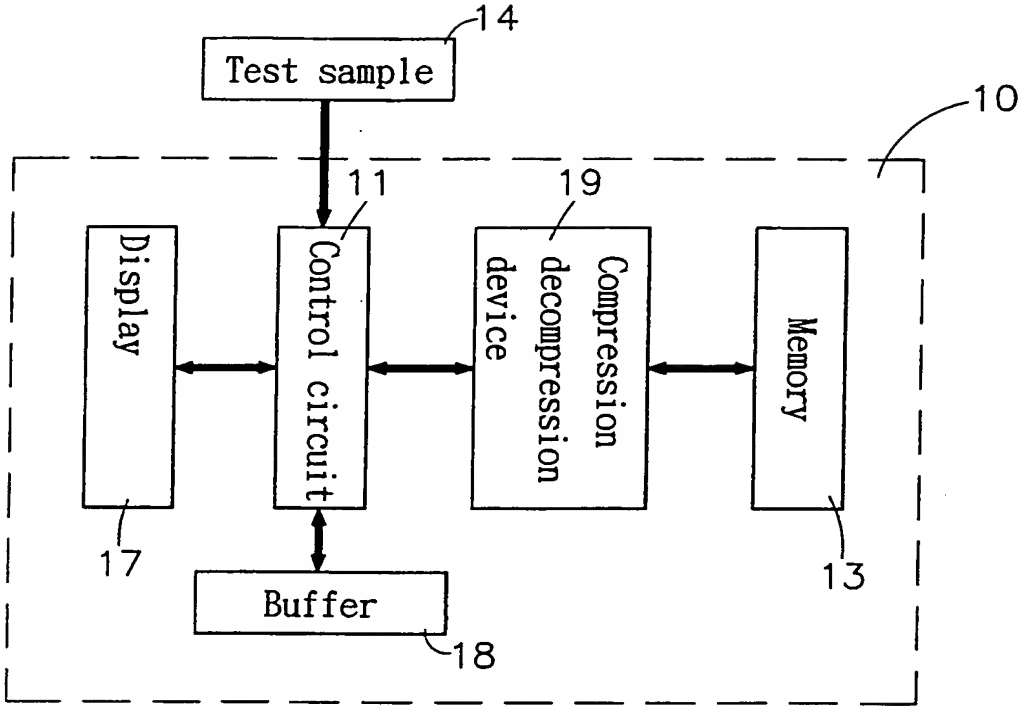

14
Test sample
10
11
19
Display
Control circuit
Compression decompression device
Memory
17
13
Buffer
18

FIG. 6A

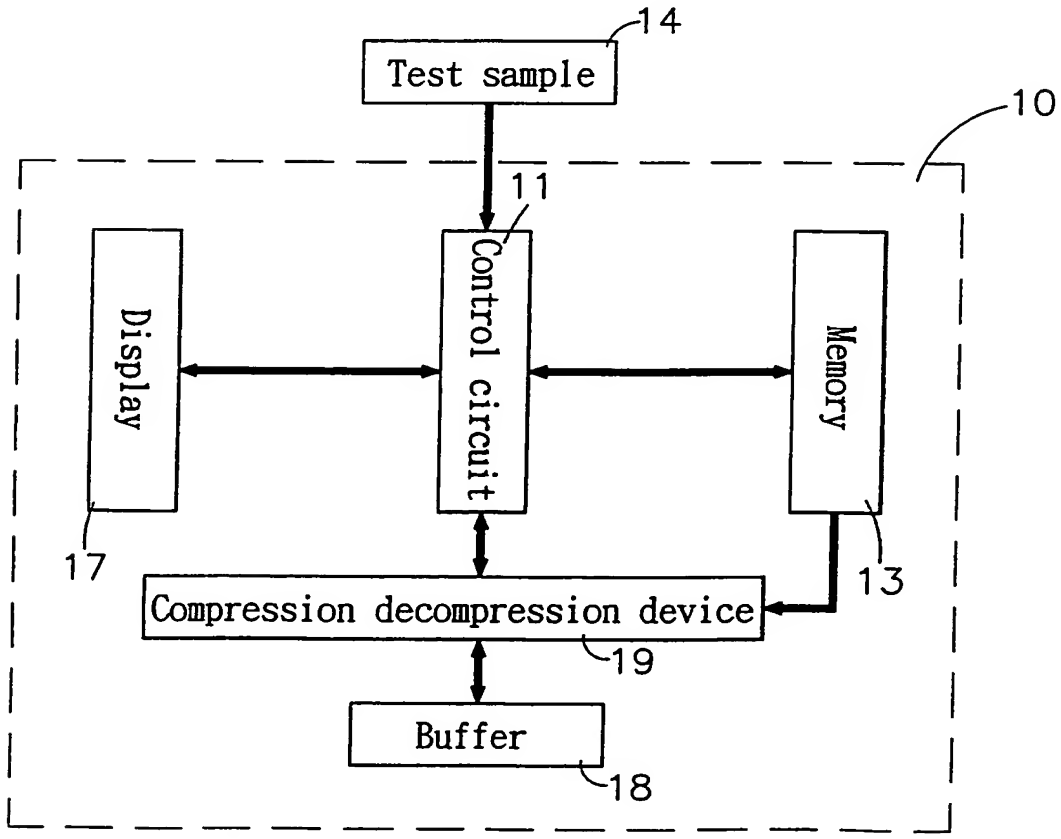

14
Test sample
10
11
Display
Control circuit
Memory
17
13
Compression decompression device
19
Buffer
18

FIG. 6B

Code	Communication protocol content
0000	⋮
0010	⋮
0002	⋮
0003	⋮
0004	⋮
0005	⋮
0006	⋮
0007	⋮
0008	⋮
0009	⋮
0010	⋮

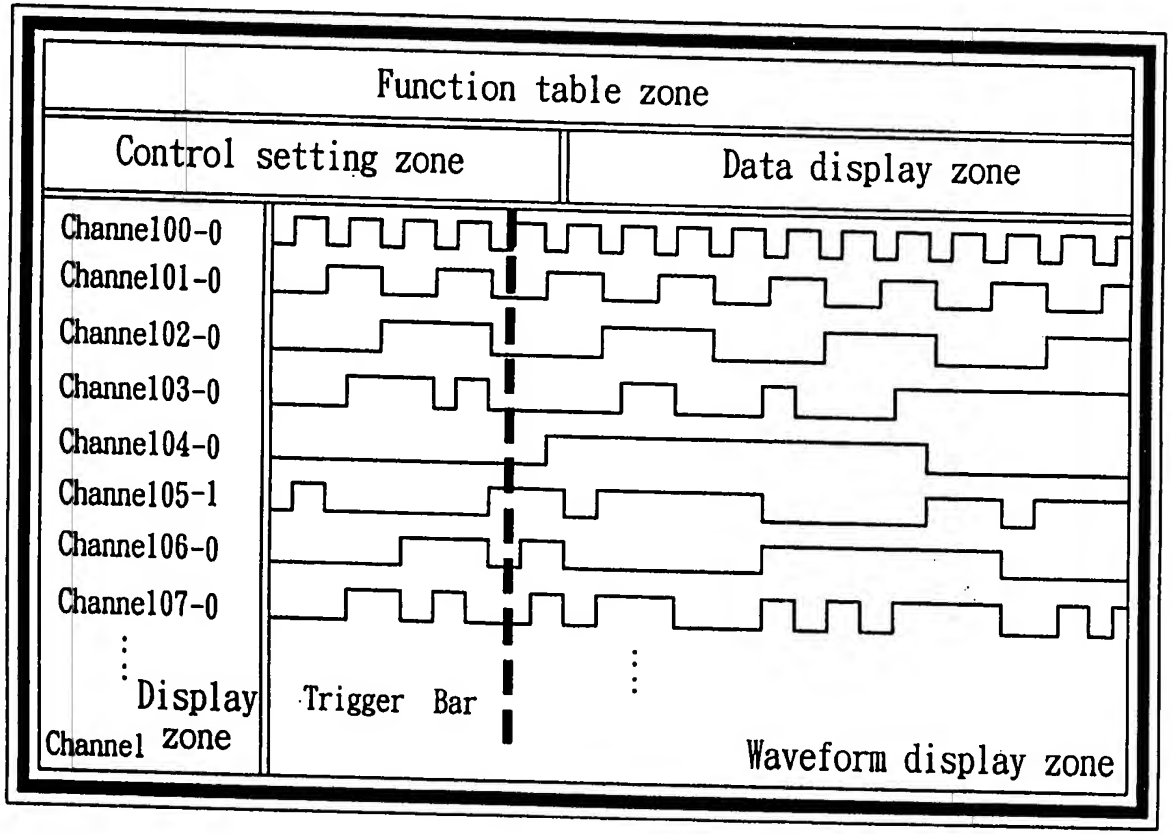
Communication protocol display window

FIG. 7

Address display zone	Data display zone
0000	0C F1 99 94 00 54 84 AE 1B C1 62 38 65 9D 71 A0
0010	00 23 47 58 57 55 23 AE 1B CC 99 A0 11 8D 71 72
0020	21 11 A0 B4 E0 F4 04 A1 CB EC D2 E8 A5 DD 7A 45
0030	33 44 99 55 00 51 8A 22 1E C2 63 38 61 90 1C AA
0040	D1 15 29 34 10 74 34 FE 11 1C 6C D8 15 1D 11 19
0050	77 25 99 94 00 84 A1 13 CC 6D E8 6D 15 1D 11 A0
0060	01 15 99 BB 00 54 84 AE 1B CC 62 38 65 9D 71 50
0070	21 11 A0 B4 E0 F4 04 A1 CB EC D2 E8 A5 DD 7A 00
⋮	⋮

Memory data display window

FIG. 8



Logic analyzer control display window

FIG. 9

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